

REMARKS/ARGUMENTS

In the specification, the paragraph at page 13 starting at line 19 has been amended to include “imputed, i.e., inferred or arrived at from known or assumed data, or derived by reasoning”, thereby better pointing out Applicants’ use of the word “imputed”.

Claims 1-20 remain in this application. Claims 1, 18, and 20 have been amended.

The Examiner stated in the Final Office Action for the original application, dated September 17, 2004: “in response to the applicant’s amendment, the recitation ‘the method being implemented as a plurality of program instructions in a computer system’, has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).”

In the Final Office Action for the original application, dated September 17, 2004 the Examiner had rejected Claims 1-20 under 35 U.S.C. 101 “because the claimed invention is directed to non-statutory subject matter”.

The Examiner also stated in the Final Office Action, “in the present case, detecting inconsistencies in raw data, correcting the detected inconsistencies, generating various econometric variables...etc. does not apply, involve, use or advance the technological arts since all the steps can be performed in the mind of the user or by the use of pencil and paper and no specific technology (e.g. computer, processor) is expressly recited in the body of the claims. In *re Toma* (CCPA 197 USPQ 852 (1978)). Although the recited method produces a useful, concrete and tangible result, since the claimed invention, as a whole, is not within the technological arts as explained above, claims 1-20 are deemed to be directed to non-statutory manner.”

Base claims 1 and 18 have now been amended to recite “using the computer” in the body of the claims and should now be in allowable form. Base claim 20 has been amended to recite

“programming instructions for” in the body of the claim and should now be in allowable form. Dependent claims 2-17 and 19 should now be allowable for at least the same reasons.

The Examiner also stated in the Final Office Action:

“The applicant referred the Examiner to page 3, lines 19-20 and page 4, lines 13-17 in the Specifications to clearly define the verb ‘impute’. The term does appear at the specified locations unfortunately, no clear definition is provided.

Where Applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999).

The term ‘[impute]’ in claims 1-17, and 20 is confusing because the accepted meaning is ‘to lay the responsibility or blame for often falsely or unjustly, and to credit to a person or a cause.’ Merriam-Webster’s collegiate dictionary- 10 Ed. The term is indefinite because the specification does not clearly redefine the term.”

In the Final Office Action for the original application, dated September 17, 2004 the Examiner had rejected Claims 1 and 20 under 35 U.S.C. 112, first paragraph, stating that they fail “to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specific phrase used but not defined is, ‘imputing econometric variables’. The specific term of lack on enablement is ‘imputing’. There does not appear to be a step in the claims or in the specifications on how the ‘imputing’ is defined such that a person having ordinary skill in the art at the time of the invention could impute data.”

Applicants respectfully submit an exemplary use and explanation of “imputation” from a statistical mathematics textbook titled “Bayesian Data Analysis” by Gelman, Carlin, Stern and Rubin. On page 453 of the Gelman et al, sub-chapter 17.7, the authors describe how imputation is used to obtain posterior inference when some data values are missing. Applicants also submit

the Webster's definitions of "infer", "inferred", "inferring" and "inference" which is also consistent with Applicants' use of "imputed" in this application.

Accordingly, as suggested by the Examiner verbally on December 16, 2004, page 14 of the specification has been amended to incorporate this commonly used mathematical definition and hence definitively points out the claimed invention. Applicants would also like to draw the Examiner's attention to lines 1-2 of page 14 of the specification as filed, which states "A further advantageous aspect of the present invention is that, even if such size or UOM information is incomplete or not provided, it can be imputed", which most mathematicians skilled in the art will understand as synonymous to "can be inferred".

In the Final Office Action the Examiner had also rejected Claims 1-20 under 35 U.S.C. 103(a) as being unpatentable over Dulaney et al. U.S. Patent 6,341,269 and in further view of Maeda et al. U.S. Patent 5,377,095 stating:

"Dulaney '269 in conjunction with Maeda '095 discloses the claimed invention, except for the different types of units and variables that can be used to determine the optimum stocking quantities or price.

However these differences are only found in the nonfunctional descriptive material and are not functionally involved in the steps recited. The detecting, correcting and inputting steps would be performed the same regardless of the type of data. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to detect, correct, and input raw econometric data be it base price, relative price, base volume, effects of stock-piling, etc, because such data does not functionally relate to the steps in the method claimed and because the subjective interpretation of the data does not patentably distinguish the claimed invention.

It would have been obvious to modify the teachings of Dulaney '269 and Maeda '095, to use the types of units and variables that the implementer decides to use. Since the applicant has not disclosed that types of units and variables selected solves any stated problem in a new or unexpected way or is for any particular purpose which is unobvious

to one of ordinary skill and it appears that the claimed feature does not distinguish the invention over similar features in the prior art since, the teachings of Dulaney '269 and Maeda '095 will perform the invention as claimed by the applicant with any means, method, or product to optimize merchandise shelf space and price.

Dulaney '269 teaches about optimizing sales by collecting and filtering the data as per selected criteria prior to use as per independent claims 1, 18, 19, and 20. Maeda '095 further teaches about specific data analysis procedures for determining/predicting the sale of an item.

Dulaney '269 does disclose the concept of when importing data into a database, indicating/utilizing a method/criteria for adding records (how to deal with duplicates) Col. 9, lines 10-16. The concept of cleansing data is old and well known. Real-World Data is Dirty: Data Cleansing and the Merge/Purge Problem. Data Mining and Knowledge Discovery.”

Applicants respectfully submits that in view of newly submitted exemplary usage and explanations of “imputation” and “inference”, as opposed to “input”, all pending claims are allowable over “Dulaney '269 in conjunction with Maeda '095, since both cited references do not teach nor suggest the “impute” or “imputation” steps as recited in the claims.

In addition, claim 8 recites “determining equivalent price for price values in the cleansed initial dataset; determining equivalent units for units values in the cleansed initial dataset; calculating values for equivalent base price and equivalent base units; determining a weighted equivalent average price; determining a weighted equivalent average base price; calculating moving averages for relative equivalent price and relative equivalent base price; and outputting relative equivalent price and relative equivalent base price as relative price variables.” (emphasis added). The inventive concept of “equivalizing” is explained in an example using soft drink products which come in 8, 12, 16, 24, 32, 64 ounce sizes starting on the last paragraph of page 13 and continuing into page 14 of the specification as filed. “A 32 o. soft drink is equivalized to two (2) 16 oz. units”. Neither Dulaney '269 nor Maeda '095 suggest or teach the present invention of equivalizing data, and hence claim 8 is allowable over the cited art.

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In sum, base claims 1, 18 and 20 have been amended. Applicants believe that all claims are now allowable over the cited art and are also in allowable form. The specification has also been amended to better point out Applicants' use of the word "imputed".

Although it is believed that no fees are due in connection with the filing of this Preliminary Amendment, the commissioner is authorized to charge any fees that may be due to our Deposit Account No. 50-2766 (Order No. DEM1P002). Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at telephone number 925-570-8198.

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Respectfully submitted,



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